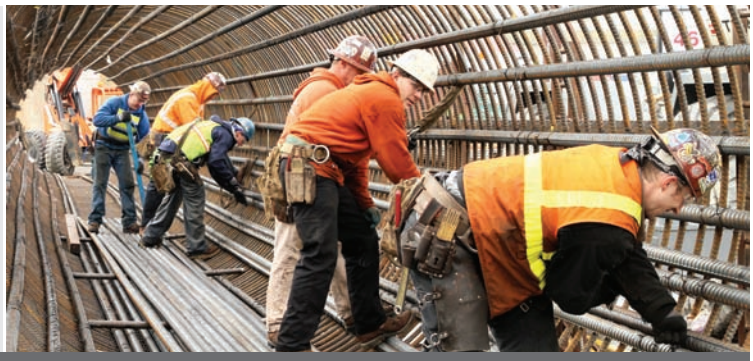
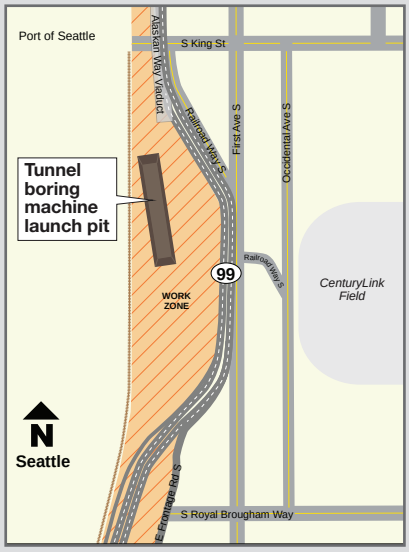
Alaskan Way Viaduct
REPLACEMENT
PROGRAM



September 2012



The tunnel boring machine will start its northward journey in a large pit being constructed to the west of Seattle's stadiums.

An example of a tunnel launch pit. Our pit will be 400 feet long, 80 feet wide and 80 feet deep.

Digging into SR 99 tunnel construction: the launch pit

In summer 2013, the largest diameter tunnel boring machine (TBM) ever built will begin digging the SR 99 tunnel beneath downtown Seattle. The 57.5-foot diameter machine will start its two mile journey in a massive pit located in the tunnel construction area to the west of Seattle's stadiums.

See the ferry boats at the center of this photo? They are roughly the same size as our TBM. Now picture one of those boats setting sail in the large dirt area in the foreground and you'll get an idea of just how large the SR 99 Tunnel Project really is.

How do you get a machine that's the size as some of Washington State Ferries' largest vessels into the ground? Simple – dig a pit. Of course the idea of the pit is simpler than its execution. A big tunneling machine requires a pretty big pit. Crews face a number of challenges and several months of hard work before the pit will be completed. Here's how the whole thing works:

Step 1: Build underground walls that will form the outside of the pit. The walls are made up of more than 200 concrete piles that are drilled up to 100 feet into the ground, side-by-side, until the walls are complete.

Step 2: Build wells to keep water out of the pit during excavation.

Step 3: Excavate more than 86,000 cubic yards of soil.

Step 4: Build a 10-foot-thick concrete foundation.

Step 5: Build a gantry crane system to lower TBM sections and other materials into the pit.

Step 6: Install utilities needed to operate the TBM.

Step 7: Assemble TBM in the pit and begin tunneling toward a new SR 99 corridor.

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For more information

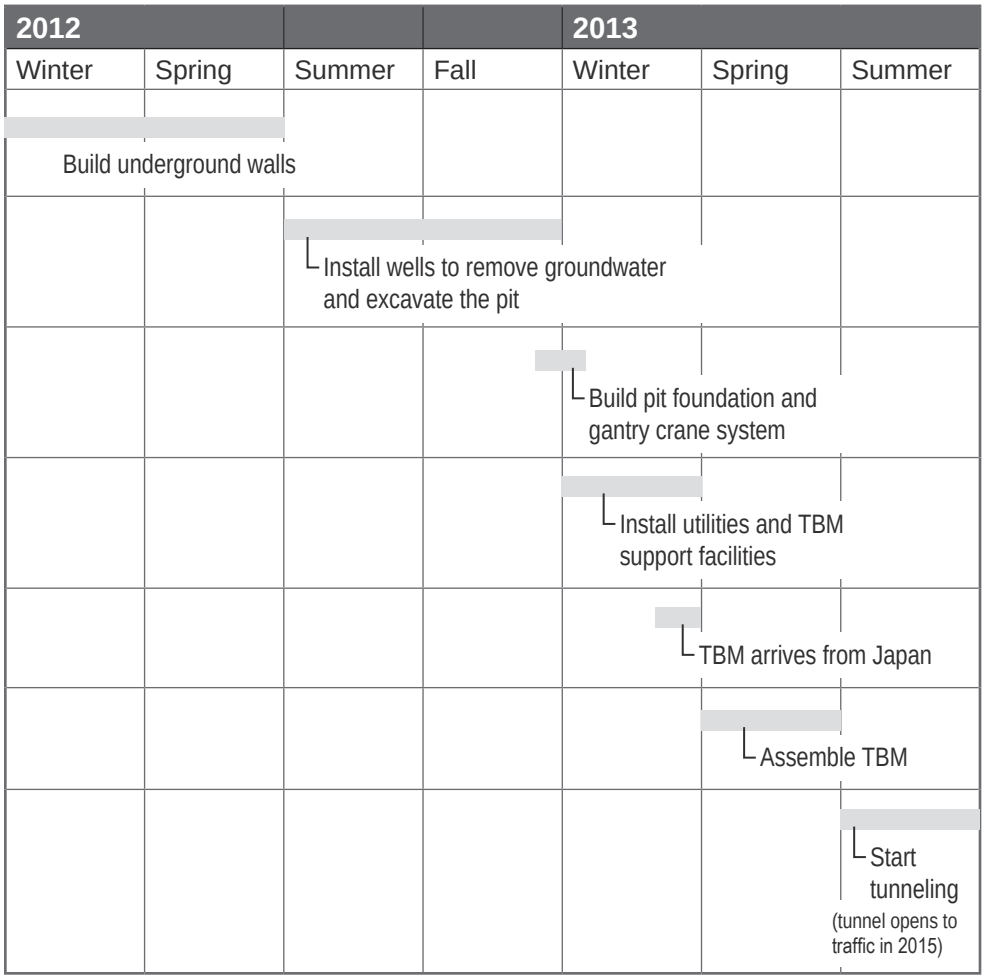
Visit the website at:
www.AlaskanWayViaduct.org

Call the hotline:
1-888-AWV-LINE

Send an email to:
viaduct@wsdot.wa.gov

Send a letter to:
Alaskan Way Viaduct
Replacement Program
c/o Washington State
Department of Transportation
999 Third Ave., Suite 2424
Seattle, WA 98104

Launch pit construction schedule



Launch pit by the numbers

Number of piles used to build the walls: 226
Pile diameter: Five feet
Pile depth: 100 feet
Launch pit length: 400 feet
Launch pit width: 80 feet
Launch pit depth: 80 feet
Amount of soil excavated: 86,000 cubic yards

Americans with Disabilities Act & Title VI information

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